

LISTING OF THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) A method of transmitting control signals for uplink transmission of packet data, comprising:

transmitting control signal data over a downlink control channel shared by a plurality of users, the downlink control channel including timeslots, each timeslot including fields identifying one of the plurality of users, each field including control signal data for the identified user for controlling uplink transmission of packet data by the identified user, the control signal data in each field including a first indicator specifying one of an acknowledgment and a negative acknowledgment of a packet transmitted by a user and a second indicator specifying a transmit rate at which the user is to transmit in the uplink, the first indicator being a first bit value representing either the acknowledgment or the negative acknowledgment, the second indicator being a second bit value representing the transmit rate, the first and second indicators being transmitted at the same time.

2. (Previously Presented) The method of claim 1, further comprising:

assigning each user a particular field in the downlink control channel, in advance of transmitting the downlink control channel.

3. (Original) The method of claim 2, wherein the assigning step includes assigning each user a particular field with a given channelization code during a call setup procedure with the user.

4-5. (Cancelled)

6. (Previously Presented) The method of claim 1, wherein the second indicator relates to a maximum transmit rate at which the user is to transmit in the uplink.

7. (Previously Presented) The method of claim 6, wherein a user adjusts transmit rate or maintains transmit rate in the uplink based on the first and second bit values of the first indicator and the second indicator.

8. (Previously Presented) The method of claim 1, wherein the number of users supported by the transmitted downlink control channel is based on one or more of a network signal-to-noise ratio value, an effective coding rate for the channel, and bit size of each field.

9. (Previously Presented) The method of claim 6, wherein the number of users supported by the transmitted downlink control channel is based on a size of the second bit value of the second indicator in each field.

10. (Previously Presented) The method of claim 6, wherein the first and second bit values are 1-bit values.

11. (Previously Presented) The method of claim 6, wherein the first and second bit values are N-bit values, N representing a positive integer greater than 1.
12. (Previously Presented) The method of claim 6, wherein the first bit value is an M-bit value and the second bit value is an N-bit value, N and M being different positive integers.
13. (Previously Presented) The method of claim 1, wherein each user specific field is individually power controlled based on monitoring the first and second indicators in the user specific field.
14. (Previously Presented) decoding a field received over a downlink control channel that is shared by a plurality of users, the shared downlink control channel including time slots, each time slot having a plurality of fields, each field including control signal data for an identified one of the plurality of users for controlling uplink transmission, the control signal data in each field including a first indicator specifying one of an acknowledgment and a negative acknowledgment of a packet transmitted by a user and a second indicator specifying a transmit rate at which the user is to transmit in the uplink, the first indicator being a first bit value representing either the acknowledgment or the negative acknowledgment, the second indicator being a second bit value representing the transmit rate, the first and second indicators being transmitted at the same time; and

transmitting packet data, from the identified user, in the uplink in accordance with the decoded control signal data.

15. (Previously Presented) The method of claim 14, wherein each user is assigned a particular field in the shared downlink control channel by a network serving the users, in advance of receiving the shared downlink control channel.

16. (Original) The method of claim 15, wherein each user is assigned a particular field with a given channelization code during a call setup procedure with the network.

17. (Previously Presented) The method of claim 14, wherein each user is assigned a particular field in the shared downlink control channel by a base station serving the user, in advance of receiving the shared downlink control channel, the assigned field adapted to be modified by the serving base station.

18. (Cancelled)

19. (Previously Presented) The method of claim 14, wherein the number of users supported by the shared downlink control channel is based on one or more of a network signal-to-noise ratio value, an effective coding rate for the shared downlink control channel, and bit size of each field in the shared downlink control channel.

20. (Cancelled)

21. (Previously Presented) The method of claim 14, wherein the second indicator relates to a maximum transmit rate at which the identified user is to transmit in the uplink.

22. (Previously Presented) The method of claim 21, wherein the identified user adjusts transmit rate or maintains transmit rate for uplink transmission based on the first and second bit values of the first indicator and the second indicator.

23. (Previously Presented) The method of claim 21, wherein the number of users supported by the shared downlink control channel is based on a size of the second bit value of the second indicator in each field.

24. (Previously Presented) The method of claim 14, wherein each user specific field is individually power controlled based on monitoring the first and second indicators in the user specific field.